

Theoretical and practical research on orienteering and experiential sports applications in higher education physical education teaching

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Abstract: This paper aims to explore the theoretical and practical research on targeted and experiential sports applications in higher education physical education teaching. Research purpose: to propose effective teaching strategies and methods for higher education physical education, so as to promote the comprehensive development of students' physical fitness and sports abilities. Research method: This study employs a combination of literature analysis and empirical research. Research findings: The application of targeted and experiential sports in higher education physical education has a significant impact on enhancing students' overall physical fitness and sports abilities. Research conclusion: Promoting targeted and experiential sports in higher education physical education requires proper curriculum design and organization, student training and guidance, as well as strict safety management and risk control.

Key words: higher education physical education; orienteering sports; experiential sports

1 Introduction

Orienteering sports are activities that combine fitness, entertainment, competition, and military value. Orienteering is relatively simple, often requiring only a map and a compass. Participants navigate through a natural environment, following a predetermined route set by organizers. It not only offers significant fitness benefits but also combines map reading, observation, identification, and decision-making skills, effectively enhancing various abilities of participants. Experiential training activities not only build individual physical strength but also foster teamwork and cooperative learning among students. Targeted and experiential training aligns with the current needs of sports development in higher education and supports China's goal of becoming a strong sports nation. Given the increasingly personalized development trends among modern college students, it is necessary for higher education institutions to provide scientific orienteering and extracurricular experiential training programs upon students' enrollment. This addresses the diverse physical activity and learning needs of contemporary student populations.

2 The theoretical foundation of orienteering and experiential sports

2.1 Psychological theories of orienteering

Orienteering encompasses a rich array of psychological theories. Firstly, the "motivation theory" posits that motivation is the inner or external force that drives individuals to engage in behavior. Motivation in orienteering can be

categorized as intrinsic and extrinsic motivation. Intrinsic motivation refers to individuals participating in orienteering out of interest, enjoyment, and personal achievement. Extrinsic motivation, on the other hand, involves participation for rewards, avoidance of punishment, or social recognition. Understanding motivation can assist coaches and teachers in designing strategies to inspire student participation in orienteering. Secondly, the "self-confidence psychology theory" emphasizes the importance of self-belief in one's abilities. In orienteering, "self-confidence psychology theory" suggests that self-confidence significantly influences an individual's performance and achievements. It argues that by boosting self-confidence, individuals can better cope with challenges, overcome obstacles, and maintain focus, ultimately enhancing their performance in orienteering. Thirdly, "attentional focus theory" highlights the selectivity and concentration of an individual's attention on external stimuli. Orienteering demands that individuals use selective and focused attention to solve navigation problems and locate target points [1]. The theory of attentional focus can aid coaches and teachers in guiding students to enhance their attentional abilities, thereby improving their performance in orienteering. Fourthly, "team cooperation theory" underscores the importance of collaboration and cooperation among members since orienteering often takes place in small groups or teams. This theory can help team members develop effective communication, coordination, and decision-making skills, resulting in improved outcomes in orienteering. Fifthly, "stress and coping theory" recognizes that orienteering participants often face pressure and stressful situations, such as time constraints and competitive pressures.

2.2 Educational theories of experiential sports

Educational theories offer valuable insights into the impact and role of experiential sports in individual educational development. Firstly, "experiential learning theory" posits that learning is acquired through personal experiences and actions. Experiential sports provide an educational approach based on active participation and firsthand experiences. Through experiential sports, students can explore and develop personal skills, problem-solving abilities, and teamwork skills through practical involvement. Secondly, "educational development theory" focuses on the cognitive, emotional, social, and physical development of individuals. It suggests that participation in experiential sports can promote comprehensive personal development. The theory emphasizes the importance of experiential activities in fostering well-rounded development. Thirdly, "social cognitive theory" highlights the significance of perception, observation, and imitation in learning and development. In experiential sports, individuals have the opportunity to observe and emulate the skills and behaviors of others. They can establish social relationships and develop social skills through collaboration and interaction. Fourthly, "self-determination theory" asserts that intrinsic motivation and autonomy are crucial for learning and development. Experiential sports provide an environment characterized by autonomy and strong individual motivation. Participants can choose experiential sports activities based on their interests and needs, thereby stimulating intrinsic motivation and enhancing learning outcomes. Fifthly, "educational assessment theory" focuses on the evaluation of learning outcomes and development effects. Experiential sports offer a comprehensive assessment approach to evaluate students' development in areas such as skills, innovation, social interactions, and teamwork [2].

3 The necessity of applying orienteering and experiential sports in higher education physical education

3.1 The necessity of applying orienteering in higher education physical education

3.1.1 Enhancing psychological resilience

Improving the adaptability of university students to changing environments has become one of the goals of higher education physical education. This contributes to the formation of a proactive life attitude and the development of a healthy lifestyle. Orienteering, as a challenging sport, is popular among young people because participants can sharpen their perseverance in overcoming difficulties. It helps cultivate participants' mental resilience, foster a healthy psychological

profile and promote a positive outlook on life. Orienteering, particularly cross-country orienteering, serves as an experiential training that takes place in outdoor environments. Participants must rely on themselves throughout the competition, facing challenges independently and solving problems through autonomous decision-making [3]. Over time, this rigorous training undoubtedly cultivates participants' composure in critical situations and decisiveness.

3.1.2 Fostering innovation skills

Orienteering requires students to engage in activities such as information filtering, path selection, and problem-solving during practical operations. This prompts students to develop and nurture innovative thinking and creativity. Through the practice of orienteering, students can exercise their innovation skills, cultivate problem-solving abilities, and continuously experiment and innovate in practical situations. In orienteering, students are confronted with various challenges and puzzles, necessitating the flexible application of knowledge and skills to devise novel solutions. Persistent practice in orienteering hones students' innovation skills, providing them with robust preparation for future learning and work.

3.1.3 Cultivating collaborative spirit

Orienteering often requires students to form small groups or teams and necessitates effective communication, cooperation, and coordination among team members. Through collaborative completion of orienteering tasks, students can cultivate and enhance their team spirit, communication skills, and leadership abilities, fostering awareness and proficiency in teamwork. In orienteering, students must jointly strategize the best routes, maintain close communication, and leverage their respective strengths to achieve common goals. Through repeated collaboration, students will learn to respect others' opinions, actively participate in group activities, collaborate effectively, and continuously optimize outcomes.

3.1.4 Cultivating determination

Orienteering is a challenging and adventurous sport that demands participants maintain a positive attitude and strong determination when facing difficulties and pressure. Through orienteering, students can exercise and develop their determination, including qualities like persistence, courage to confront challenges, and the ability to overcome fear. In orienteering, students encounter unpredictable obstacles and environmental changes, requiring them to surmount difficulties, challenge their limits, adjust strategies, seek solutions, and persistently advance toward their goals. Through constant challenges and overcoming, students' determination will be honed and enhanced, enabling them to confront life's challenges and setbacks with greater strength and confidence.

3.2 The necessity of applying experiential sports in higher education physical education

3.2.1 Innovative learning experiences

Experiential sports often entail a high degree of challenge and adventure, providing students with innovative and stimulating learning experiences. By participating in experiential sports, students can confront diverse challenges and difficulties, fostering problem-solving abilities, nurturing courage and determination, and promoting holistic personal growth. Experiential sports represent not only physical challenges but also intellectual ones, requiring students to think flexibly and seek innovative solutions, thereby cultivating self-directed learning and problem-solving skills. Such innovative learning experiences will ignite students' interest and motivation for active learning and exploration.

3.2.2 Facilitating team collaboration

Experiential sports typically involve students forming small groups or teams, necessitating effective communication, cooperation, and coordination among members. Through experiential sports, students can cultivate and enhance their team collaboration, communication skills, leadership abilities, and promote social interaction and the development of collaborative skills. In experiential sports, students must jointly face challenges, devise strategies, and collaboratively solve

problems, fostering awareness and skills in teamwork. Through repeated collaborative practice, students learn to respect others, listen to their opinions, collaborate, support, and encourage each other, ultimately forming habits of teamwork and cohesion.

3.2.3 Promoting self-awareness

Experiential sports require students to confront their own abilities and limitations, challenge their boundaries, and promote personal growth and development. Through participation in experiential sports, students can better understand their strengths and weaknesses, build confidence and self-esteem, and develop positive psychological qualities and personal attributes. In experiential sports, students need to tackle various challenges and difficulties, fully leveraging their potential and abilities, while also recognizing their limitations. Through continuous experimentation and challenge, students can gradually understand and develop their actual and latent capabilities, enhancing their self-confidence and self-esteem. This positive and healthy psychological state will positively influence students' learning and life.

3.2.4 Cultivating comprehensive qualities

Experiential sports require students to develop comprehensive qualities, including physical fitness, skill competency, cognitive abilities, and emotional intelligence. By participating in experiential sports, students can enhance their physical coordination, flexibility, and endurance, as well as nurture cognitive abilities and emotional regulation skills. In experiential sports, students must apply their skills and knowledge while adaptively responding to different scenarios and environments, thus enhancing their physical and skill-based attributes. Additionally, students employ cognitive abilities to solve problems and make decisions, honing their judgment and analytical skills. Through the cultivation of comprehensive qualities, students can holistically develop their personal attributes, enhance their overall capabilities, and establish a solid foundation for future learning and life.

4 Practical pathways for implementing orienteering in higher education physical education

4.1 Rational curriculum design and organization

In the practical pathway of orienteering implementation, it is crucial to first design appropriate course content and teaching plans. The course content should encompass theoretical knowledge and skills related to orienteering, such as map reading, direction assessment, route selection, and practical training. Teaching plans should schedule orienteering course timings and hours sensibly, ensuring ample time for learning and practice. Course design should align with students' academic levels and interests, gradually guiding them from foundational to advanced skills in orienteering.

4.2 Provision of student training and guidance

To enable students to adapt to and participate in orienteering, essential training and guidance are indispensable. This includes providing students with fundamental knowledge and skill training in orienteering, such as map interpretation and compass usage methods. Teachers can conduct training through classroom lectures, demonstration exercises, and simulated practices to help students grasp the basic techniques and methods of orienteering. Furthermore, teachers should offer on-site guidance, allowing students to engage in hands-on activities and experience the process of orienteering themselves, so as to enhance their practical skills and problem-solving abilities. During training and guidance, emphasis should be placed on interaction with students and personalized instruction. Different students may have varying levels of understanding and mastery of orienteering, and teachers should provide individualized guidance based on their actual circumstances.

4.3 Strict safety management and risk control

Safety is a paramount consideration during the practical process of orienteering. Teachers should emphasize students' safety awareness and self-protection abilities, guiding them to anticipate risks and identify hazards. Additionally, students should be provided with necessary safety equipment and protective measures to ensure their physical and mental well-

being while engaging in orienteering. Teachers should gradually increase the difficulty and challenges based on students' capabilities and experience to avoid excessive risks. Throughout orienteering practice, teachers need to exercise strict management and control over safety and risk. They should assess the safety of the activity location in advance, ensuring that the environment and equipment are safe and reliable. During practical activities, teachers should closely monitor students, promptly identify and address potential safety issues. Moreover, teachers should instruct students to pay attention to their personal health, ensuring adequate rest and hydration to prevent overexertion or unforeseen circumstances. Through rigorous safety management and risk control, students' safety can be maximally protected, ensuring their participation in orienteering is safe and healthy.

4.4 Enhancing teacher professional competence

As leaders in orienteering instruction, teachers need to possess relevant theoretical knowledge and practical experience. They should be well-versed in the pertinent knowledge and skills of orienteering and be proficient in organizing and guiding students in practical activities. Moreover, teachers must have the ability to manage safety and control risks to safeguard students. Teachers can enhance their professional competence through self-directed learning and professional training. They can study relevant case studies and theoretical knowledge, gaining a deeper understanding of the principles and techniques of orienteering. Additionally, participating in relevant training courses and workshops, as well as engaging in exchanges with other educators, allows them to broaden their horizons and expand their knowledge base. Through continuous learning and experience accumulation, teachers can improve their professional competence, better address challenges and issues in orienteering instruction, and provide enhanced teaching services to students.

5 Practical pathways for implementing experiential sports in higher education physical education

5.1 Needs assessment

Before embarking on the practical implementation of experiential sports, teachers should first understand students' interests and requirements. Through methods such as surveys and group discussions, teachers can collect information about students' interests and preferences for various sports activities, as well as their expectations and desires regarding the application of experiential sports. The primary objective of this assessment phase is to determine suitable experiential sports activities and teaching content that align with students' actual needs.

5.2 Selection of sports activities

Based on students' needs and the school's available resources, teachers can choose suitable experiential sports activities. These activities should be selected based on students' interests and feasibility. For instance, if the school is located near natural environments such as mountains or beaches, activities like hiking or water sports may be considered. In cases with limited resources, activities like team-building exercises or indoor rock climbing can be options. Selecting appropriate sports activities can increase students' enthusiasm for participation and enhance their interest and motivation for learning. When choosing sports activities, teachers should also consider safety aspects. Different activities may entail varying levels of risks and challenges, so teachers need to assess students' abilities and skills to ensure that they possess the basic prerequisites for participating in these activities. For activities with higher risks or complexity, teachers can consider inviting professional coaches or instructors to provide expert guidance and training to ensure students' safety.

5.3 Designing teaching plans

Based on the chosen experiential sports activities, teachers should develop detailed teaching plans. These plans should include introductions to the sports activities, technical training, practical exercises, and teamwork components. The purpose of teaching plans is to comprehensively develop students' sports abilities, teamwork, and problem-solving skills.

Teachers can reasonably arrange teaching content and stage-specific objectives based on students' actual circumstances and skill levels, inspiring students to participate in experiential sports and assisting them in gradually improving their sports skills and overall qualities.

5.4 Providing professional guidance

During the implementation of experiential sports applications, teachers should offer professional guidance and technical support. They can organize experts, coaches, or experienced instructors to provide students with sports technique guidance and safety knowledge training, ensuring that students grasp the correct techniques and safety awareness while engaging in sports activities. Through the provision of professional guidance, teachers can help students fully understand the rules and essentials of sports activities, master proper movement techniques, and prevent and address potential safety issues that may arise during sports activities.

5.5 Organizing practical activities

Practical activities are a vital component of experiential sports applications, including outdoor practices, competitions, and visits to professional training facilities. Through on-site practical experience, students can personally appreciate the charm of experiential sports, enhancing their practical skills and sports abilities. Teachers can organize students to participate in outdoor experiential activities, exposing them to various environments and conditions to strengthen their adaptability and teamwork spirit. Additionally, teachers can arrange students to participate in competitions and events, enabling them to interact and compete with students from other schools, and igniting their competitive spirit and team pride.

6 Conclusion

In higher education physical education, the application of orienteering and experiential sports as emerging teaching methods plays a significant role in the physical and mental development and overall quality improvement of students. The application of orienteering and experiential sports enriches the content of physical education, broadens students' understanding and experience of different sports activities, and cultivates their teamwork, communication, and leadership abilities. However, the implementation of orienteering and experiential sports applications in higher education physical education also faces several challenges. Therefore, this article suggests that efforts can be made in understanding student needs, appropriately arranging teaching content, providing professional guidance and evaluation, and strengthening teamwork and communication. It is hoped that this can provide some reference and inspiration for higher education physical education, promoting further development and application of orienteering and experiential sports applications in higher education.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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